## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:	10/743.649A
Source:	1FW16
Date Processed by STIC:	11/2/05

## ENTERED



IFW/6

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RAW SEQUENCE LISTING DATE: 11/02/2005
PATENT APPLICATION: US/10/743,649A TIME: 10:16:11

Input Set: A:\18003-D2 Sequence Listing 20051027.txt
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Output Set: N:\CRF4\11022005\J743649A.raw

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3 <110> APPLICANT: Bell, John C.
           Sonenberg, Nahum
           Stojdl, David F.
   5
   6
           Brown, Earl G.
   7
           Atkins, Harold L.
           Marius, Ricardo M.
           Lichty, Brian D.
   9
  10
           Knowles, Shane B.
  12 <120> TITLE OF INVENTION: ONCOLYTIC VIRUS
  14 <130> FILE REFERENCE: 18003-D2
  16 <140> CURRENT APPLICATION NUMBER: US 10/743,649A
-> 17 <141> CURRENT FILING DATE: 2003-12-23
  19 <150> PRIOR APPLICATION NUMBER: US 09/664,444
  20 <151> PRIOR FILING DATE: 2000-09-18
  22 <150> PRIOR APPLICATION NUMBER: 60/287,590
  23 <151> PRIOR FILING DATE: 1999-09-17
  25 <160> NUMBER OF SEQ ID NOS: 52
  27 <170> SOFTWARE: PatentIn Ver. 2.1
  29 <210> SEQ ID NO: 1
  30 <211> LENGTH: 11
  31 <212> TYPE: PRT
  32 <213> ORGANISM: Artificial Sequence
  34 <220> FEATURE:,
  35 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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  43 <210> SEQ ID NO: 2
  44 <211> LENGTH: 12
  45 <212> TYPE: PRT
  46 <213> ORGANISM: Artificial Sequence
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  60 <213> ORGANISM: Artificial Sequence
  62 <220> FEATURE:
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DATE: 11/02/2005

TIME: 10:16:11

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               Output Set: N:\CRF4\11022005\J743649A.raw
63 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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72 <211> LENGTH: 9
73 <212> TYPE: PRT
74 <213> ORGANISM: Artificial Sequence
76 <220> FEATURE:
77 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
78
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80 <400> SEQUENCE: 4
81 Cys His His His Arg Leu Asn Cys
82
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85 <210> SEQ ID NO: 5
86 <211> LENGTH: 9
87 <212> TYPE: PRT
88 <213> ORGANISM: Artificial Sequence
90 <220> FEATURE:
91 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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99 <210> SEQ ID NO: 6
100 <211> LENGTH: 9
101 <212> TYPE: PRT
102 <213> ORGANISM: Artificial Sequence
104 <220> FEATURE:
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108 <400> SEQUENCE: 6
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128 <211> LENGTH: 10
129 <212> TYPE: PRT
130 <213> ORGANISM: Artificial Sequence
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/743,649A

RAW SEQUENCE LISTING DATE: 11/02/2005
PATENT APPLICATION: US/10/743,649A TIME: 10:16:11

Input Set : A:\18003-D2 Sequence Listing 20051027.txt

Output Set: N:\CRF4\11022005\J743649A.raw

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143 <212> TYPE: DNA
144 <213> ORGANISM: Vesicular stomatitis virus
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148 aatgaggatc cagtggaata cccggcagat tacttcagaa aatcaaagga gattcctctt 120
149 tacatcaata ctacaaaaag tttgtcagat ctaagaggat atgtctacca aggcctcaaa 180
150 teeggaaatg tateaateat acatgteaac agetaettgt atggageatt aaaggacate 240
151 cggggtaagt tggataaaga ttggtcaagt ttcggaataa acatcgggaa agcaggggat 300
152 acaatcggaa tatttgacct tgtatccttg aaagccctgg acggcgtact tccagatgga 360
153 gtatcggatg cttccagaac cagcgcagat gacaaatggt tgcctttgta tctacttggc 420
154 ttatacagag tgggcagaac acaaatgcct gaatacagaa aaaagctcat ggatgggctg 480
155 acaaatcaat gcaaaatgat caatgaacag tttgaacctc ttgtgccaga aggtcgtgac 540
156 atttttgatg tgtggggaaa tgacagtaat tacacaaaaa ttgtcgctgc agtggacatg 600
157 ttcttccaca tgttcaaaaa acatgaatgt gcctcgttca gatacggaac tattgtttcc 660
158 agattcaaag attgtgctgc attggcaaca tttggacacc tctgcaaaat aaccggaatg 720
159 tctacagaag atgtaacgac ctggatcttg aaccgagaag ttgcagatga aatggtccaa 780
160 atgatgette caggecaaga aattgacaag geegatteat acatgeetta tttgategae 840
161 tttggattgt cttctaagtc tccatattct tccgtcaaaa accctgcctt ccacttctgg 900
162 gggcaattga cagctettet geteagatee accagageaa ggaatgeeeg acageetgat 960
163 gacattgagt atacatctct tactacagca ggtttgttgt acgcttatgc agtaggatcc 1020
164 tctgccgact tggcacaaca gttttgtgtt ggagataaca aatacactcc agatgatagt 1080
165 accggaggat tgacgactaa tgcaccgcca caaggcagag atgtggtcga atggctcgga 1140
166 tggtttgaag atcaaaacag aaaaccgact cctgatatga tgcagtatgc gaaaagagca 1200
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168 gacaaatga
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173 <212> TYPE: DNA
174 <213> ORGANISM: Vesicular stomatitis virus
176 <400> SEQUENCE: 10
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178 aatgaggatc cagtggaata cccggcagat tacttcagaa aatcaaagga gattcctctt 120
179 tacatcaata ctacaaaaaq tttgtcagat ctaagaggat atgtctacca aggcctcaaa 180
180 teeggaaatg tateaateat acatgteaac agetaettgt atggageatt gaaggacate 240
181 cggggtaagt tggataaaga ttggtcaagt ttcggaataa acatcgggaa ggcaggggat 300
182 acaatcggaa tatttgacct tgtatccttg aaagccctgg acggtgtact tccagatgga 360
183 gtateggatg ettecagaac eagegeagat gacaaatggt tgeetttgta tetaettgge 420
184 ttatacagag tgggcagaac acaaatgcct gaatacagaa aaaggctcat ggatgggctg 480
185 acaaatcaat gcaaaatgat caatgaacag tttgaacctc ttgtgccaga aggtcgtgac 540
186 atttttgatg tgtggggaaa tgacagtaat tacacaaaaa ttgtcgctgc agtggacatg 600
187 ttcttccaca tgttcaaaaa acatgaatgt gcctcgttca gatacggaac tattgtttcc 660
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RAW SEQUENCE LISTING DATE: 11/02/2005
PATENT APPLICATION: US/10/743,649A TIME: 10:16:11

Input Set : A:\18003-D2 Sequence Listing 20051027.txt

Output Set: N:\CRF4\11022005\J743649A.raw

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188 agattcaaag attgtgctgc attggcaaca tttggacacc tctgcaaaat aaccggaatg 720
189 totacagaag atgtaacgac ctggatottg aaccgagaag ttgcagatga gatggtccaa 780
190 atgatgette caggecaaga aattgacaag geegatteat acatgeetta titgategae 840
191 tttqqattqt cttctaaqtc tccatattct tccgtcaaaa accctgcctt ccacttctqq 900
192 gggcaattga cagctcttct gctcagatcc accagagcaa ggaatgcccg acagcctgat 960
193 gacattgagt atacatetet tactacagea ggtttgttgt acgettatge agtaggatee 1020
194 tetgetgaet tggeacaaca gttttgtgtt ggagatagea aatacaetee agatgatagt 1080
195 accggaggat tgacgactaa tgcaccgcca caaggcagag atgtggtcga atggctcgga 1140
196 tggtttgaag atcaaaacag aaaaccgact cctgatatga tgcagtatgc gaaacgagca 1200
197 gtcatgtcac tgcaaggcct aagagagaag acaattggca agtatgctaa gtcagaattt 1260
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202 <211> LENGTH: 1269
203 <212> TYPE: DNA
204 <213> ORGANISM: Vesicular stomatitis virus
206 <400> SEQUENCE: 11
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208 aatgaggatc cagtggaata cccggcagat tacttcagaa aatcaaagga gattcctctt 120
209 tacatcaata ctacaaaaag tttgtcagat ctaagaggat atgtctacca aggcctcaaa 180
210 teeggaaatg tateaateat acatgteaac agetaettgt atggageatt gaaggacate 240
211 cggggtaagt tggataaaga ttggtcaagt ttcggaataa acatcgggaa ggcaggggat 300
212 acaatcggaa tatttgacct tgtatccttg aaagccctgg acggtgtact tccagatgga 360
213 gtatcggatg cttccagaac cagcgcagat gacaaatggt tgcctttgta tctacttggc 420
214 ttatacagag tgggcagaac acaaatgcct gaatacagaa aaaggctcat ggatgggctg 480
215 acaaatcaat gcaaaatgat caatgaacag tttgaacctc ttgtgccaga aggtcgtgac 540
216 atttttgatg tgtggggaaa tgacagtaat tacacaaaaa ttgtcgctgc agtggacatg 600
217 ttcttccaca tgttcaaaaa acatgaatgt gcctcgttca gatacggaac tattgtttcc 660
218 agattcaaag attgtgctgc attggcaaca tttggacacc tctgcaaaat aaccggaatg 720
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222 gggcaattga cagctcttct gctcagatct accagagcaa ggaatgcccg acagcctgat 960
223 gacattgagt atacatetet tactacagea ggtttgttgt acgettatge agtaggatee 1020
224 tctgctgact tggcacaaca gttttgtgtt ggagatagca aatacactcc agatgatagt 1080
225 accggaggat tgacgactaa tgcaccgcca caaggcagag atgtggtcga atggctcgga 1140
226 tggtttgaag atcaaaacag aaaaccgact cctgatatga tgcagtatgc gaaacgagca 1200
227 gtcatgtcac tgcaaggcct aagagagaag acaattggca agtatgctaa gtcagaattt 1260
228 gacaaatga
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231 <210> SEO ID NO: 12
232 <211> LENGTH: 1269
233 <212> TYPE: DNA
234 <213> ORGANISM: Vesicular stomatitis virus
236 <400> SEQUENCE: 12
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238 aatgaggatc cagtggaata cccggcagat tacttcagaa aatcaaagga gattcctctt 120
239 tacatcaata ctacaaaaag tttgtcagat ctaagaggat atgtctacca aggcctcaaa 180
240 teeggaaatg tateaateat acatgteaac agetaettgt atggageatt gaaggacate 240
241 cgqqqtaaqt tqqataaaqa ttqqtcaagt ttcqqaataa acatcqqqaa gqcagqqqat 300
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242 acaatcggaa tatttgacct tgtatccttg aaagccctgg acggtgtact tccagatgga 360

RAW SEQUENCE LISTING DATE: 11/02/2005
PATENT APPLICATION: US/10/743,649A TIME: 10:16:11

Input Set : A:\18003-D2 Sequence Listing 20051027.txt

Output Set: N:\CRF4\11022005\J743649A.raw

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  244 ttatacagag tgggcagaac acaaatgcct gaatacagaa aaaggctcat ggatgggctg 480
  245 acaaatcaat gcaaaatgat caatgaacag tttgaacctc ttgtgccaga aggtcgtgac 540
  246 atttttgatg tgtggggaaa tgacagtaat tacacaaaaa ttgtcgctgc agtggacatg 600
  247 ttcttccaca tgttcaaaaa acatgaatgt gcctcgttca gatacggaac tattgtttcc 660
  248 agattcaaag attgtgctgc attggcaaca tttggacacc tctgcaaaat aaccggaatg 720
  249 tetacagaag atgtaaegae etggatettg aacegagaag ttgcagatga gatggteeaa 780
  250 atgatgette caggecaaga aattgacaag geegatteat acatgeetta titgategae 840
  251 tttggattgt cttctaagtc tccatattct tccgtcaaaa accctgcctt ccacttctgg 900
  252 gggcaattga cagctettet geteagatee accagageaa ggaatgeeeg acageetgat 960
  253 gacattgagt atacatetet tactacagea ggtttgttgt acgettatge agtaggatee 1020
  254 tetgetgaet tggeacaaca gttttgtgtt ggagatagea aatacaetee agatgatagt 1080
  255 accggaggat tgacgactaa tgcaccgcca caaggcagag atgtggtcga atggctcgga 1140
  256 tggtttgaag atcaaaacag aaaaccgact cctgatatga tgcagtatgc gaaacgagca 1200
  257 gtcatgtcac tgcaaggcct aagagagaag acaattggca agtatgctaa gtcagaattt 1260
  258 gacaaatga
  261 <210> SEQ ID NO: 13
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  263 <212> TYPE: DNA
  264 <213> ORGANISM: Vesicular stomatitis virus
  266 <220> FEATURE:
  267 <221> NAME/KEY: modified base
  268 <222> LOCATION: (1)..(1029)
  269 <223> OTHER INFORMATION: "n" represents a, t, c, g, other or unknown
  271 <400> SEQUENCE: 13
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  273 gataaagatt ggtcaagttt cggaataaac atcgggaagg caggggatac aatcggaata 120
  274 tttgaccttg tatccttgaa agccctggac ggtgtacttc cagatggagt atcggatgct 180
  275 tccagaacca gcgcagatga caaatggttg cctttgtatc tacttggctt atacagagtg 240
  276 ggcagaacac aaatgcctga atacagaaaa aggctcatgg atgggctgac aaatcaatgc 300
  277 aaaatgatca atgaacagtt tgaacctctt gtgccagaag gtcgtgacat ttttgatgtg 360
  278 tggggaaatg acagtaatta cacaaaaatt gtcgctgcag tggacatgtt cttccacatg 420
  279 ttcaaaaaac atgaatgtgc ctcgttcaga tacggaacta ttgtttccag attcaaagat 480
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  282 ggccaagaaa ttgacaaggc cgattcatac atgccttatt tgatcgactt tggattgtct 660
  283 tetaagtete catattette egteaaaaac cetgeettee aettetgggg geaattgaet 720
-> 284 gacattgagt atacatctcn tactacagca ggtttgttgt acgcttatgc agtaggatcc 780
-> 285 tctgctgact tggcacanca gttttgtgtt ggagatagca aatacactcc agatgatagt 840
  286 accggaggat tgacgactaa tgcaccgcca caaggcagag atgtggtcga atggctcgga 900
  287 tggtttgaag atcaaaacag aaaaccgact cctgatatga tgcagtatgc gaaacgagca 960
  288 gtcatgtcac tgcaaggcct aagagagaag acaattggca agtatgctaa gtcagaattt 1020
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  293 <211> LENGTH: 422
  294 <212> TYPE: PRT
  295 <213> ORGANISM: Vesicular stomatitis virus
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298 Met Ser Val Thr Val Lys Arg Ile Ile Asp Asn Thr Val Ile Val Pro

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 11/02/2005 PATENT APPLICATION: US/10/743,649A TIME: 10:16:12

Input Set : A:\18003-D2 Sequence Listing 20051027.txt

Output Set: N:\CRF4\11022005\J743649A.raw

## ease Note:

3 of n and/or Xaa have been detected in the Sequence Listing. Please review the quence Listing to ensure that a corresponding explanation is presented in the <220> <223> fields of each sequence which presents at least one n or Xaa.

I#:13; N Pos. 740,798 I#:17; Xaa Pos. 247,266 I#:37; N Pos. 144 I#:42; Xaa Pos. 6,48 I#:44; Xaa Pos. 430 I#:49; N Pos. 3810,3831 I#:51; Xaa Pos. 22,51 I#:52; Xaa Pos. 1270,1277 VERIFICATION SUMMARY

DATE: 11/02/2005

PATENT APPLICATION: US/10/743,649A

TIME: 10:16:12

Input Set : A:\18003-D2 Sequence Listing 20051027.txt

Output Set: N:\CRF4\11022005\J743649A.raw

17 M:271 C: Current Filing Date differs, Replaced Current Filing Date 284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:720 285 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:780 512 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:240 515 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:256 1350 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:120 1565 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0 1571 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:32 1764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:316 2179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:3780 2641 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:16 2647 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:48 3217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:1264